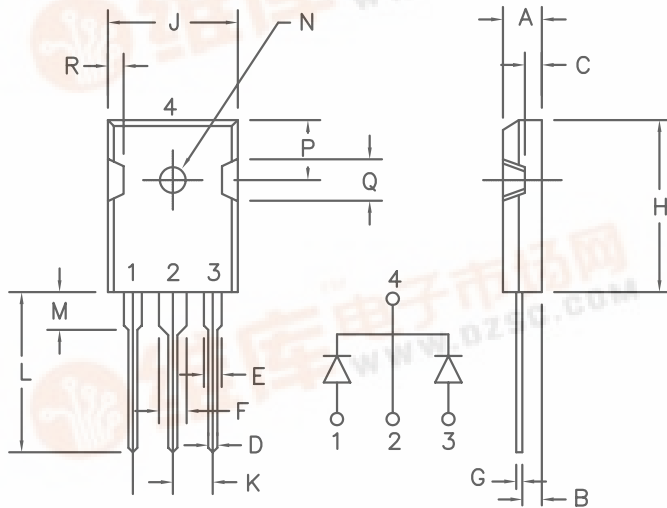


50Amp Schottky Rectifier FST5060



Similar to TO-247AD

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.185	.209	4.70	5.31	
B	.087	.102	2.21	2.59	
C	.059	.098	1.50	2.49	
D	.040	.055	1.02	1.40	
E	.079	.094	2.01	2.39	
F	.118	.133	3.00	3.38	
G	.016	.031	.410	0.78	
H	.819	.883	20.80	22.4	
J	.627	.650	15.93	16.5	
K	.215	—	5.46	—	Typ.
L	.790	.810	20.07	20.6	
M	.157	.180	3.99	4.57	
N	.139	.144	3.53	3.66	Dia.
P	.255	.300	6.48	7.62	
Q	.170	.210	4.32	5.33	
R	.080	.110	2.03	2.79	

Microsemi Catalog
Number

FST5060

Industry
Part Number

MBR5060WT
SBL6060PT

Repetitive Peak
Reverse Voltage

60V

Transient Peak
Reverse Voltage

60V

- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- 175°C Junction Temperature
- VRRM 60 Volts

Electrical Characteristics

Average Forward Current per pkg.	$I_F(AV)$ 50 Amps	$T_C = 156^\circ C$, Square wave, $R_{\theta JC} = 0.5^\circ C/W$
Average Forward Current per leg	$I_F(AV)$ 25 Amps	$T_C = 156^\circ C$, Square wave, $R_{\theta JC} = 1.0^\circ C/W$
Maximum Surge Current per leg	I_{FSM} 400 Amps	8.3ms, half sine
Max. Peak Forward Voltage per leg	V_{FM} .67 Volts	$I_{FM} = 25A$, $T_J = 25^\circ C^*$
Max. Peak Reverse Current per leg	I_{RM} 25 mA	V_{RRM} , $T_J = 125^\circ C^*$
Max. Peak Reverse Current per leg	I_{RM} 1.5 mA	V_{RRM} , $T_J = 25^\circ C$
Typical Junction Capacitance per leg	C_J 1200 pF	$V_R = 5.0V$, $T_J = 25^\circ C$

*Pulse test: Pulse width 300 usec. Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $+175^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $+175^\circ C$
Max thermal resistance per leg	$R_{\theta JC}$	$1.0^\circ C/W$
Max thermal resistance per pkg.	$R_{\theta JC}$	$0.5^\circ C/W$
Mounting Torque		5–10 inch pounds (4–40 screws)
Weight		.22 ounces (6.36 grams) typical



COLORADO

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Broomfield, CO. 80020
PH: (303) 469-2161

2-7-05 Rev. 1

FST5060

Figure 1
Typical Forward Characteristics—Per Leg

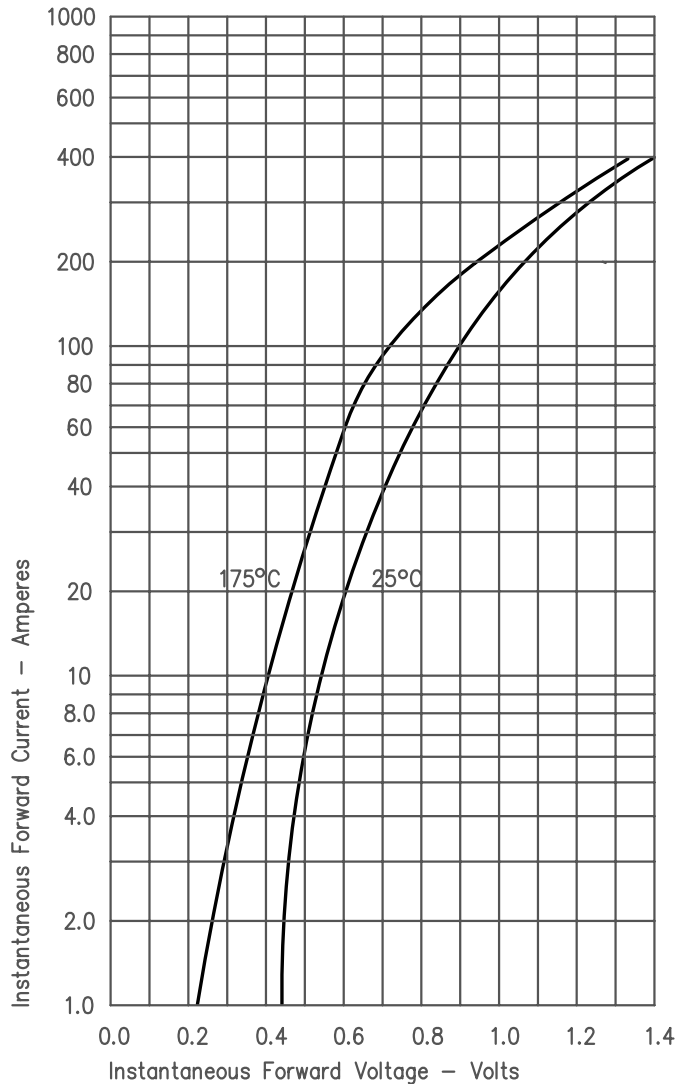


Figure 3
Typical Junction Capacitance—Per Leg

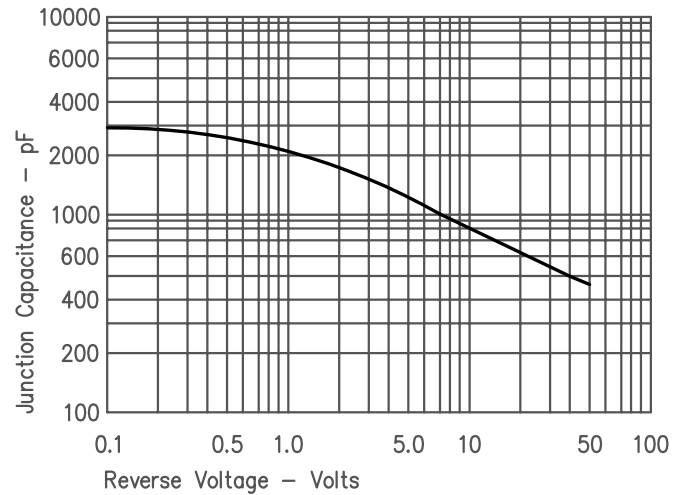


Figure 4
Forward Current Derating—Per Leg

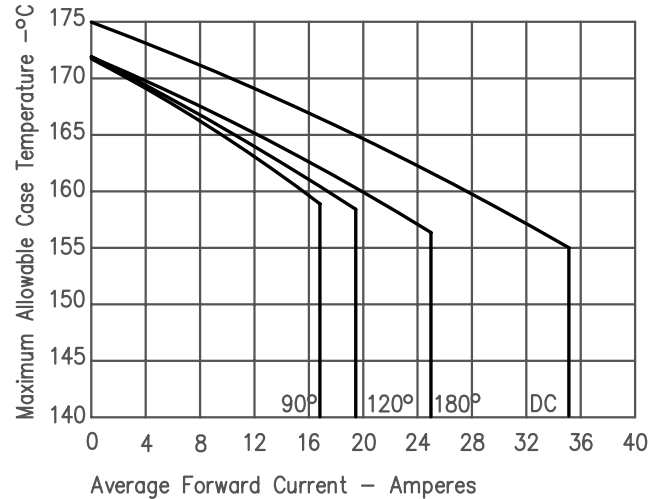


Figure 2
Typical Reverse Characteristics—Per Leg

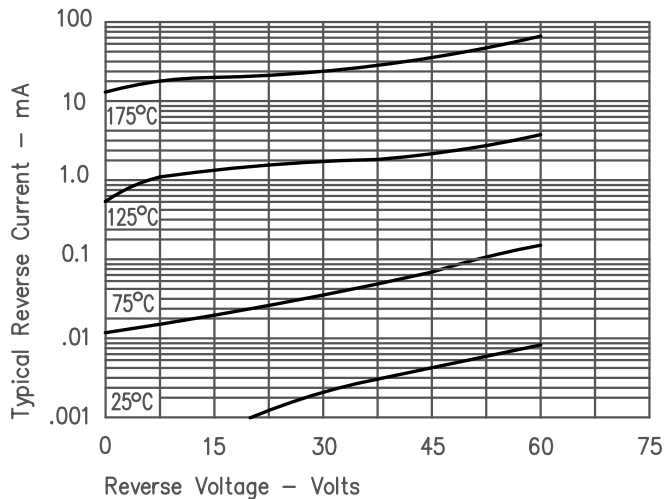


Figure 5
Forward Current Derating—Per Leg

